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10/563,664	01/06/2006	Wei-Chia Lee	10191/4091	2943
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EXAMINER				
MORTELL, JOHN F				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/563,664

Applicant(s)

LEE ET AL.

Examiner

JOHN MORTELL

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Amendment

Claims 1-9 have been cancelled.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 10, 11, 12, 13, 15, 16, 18, 19, 20, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimazaki et al. (US PG Pub. 2004/0153243 A1).

Regarding claim 10, Shimazaki teaches:

a device for driving assistance for parallel parking a vehicle ([0002], [0033]), comprising:

an output unit for outputting parallel parking driving instructions to a driver ([0035], [0036], [0061], [0062], [0063], [0064], [0065]; Fig. 2: 2, 4, 8, 13);

wherein the parallel parking driving instructions provide a driver with a driving zone situated between two trajectories which are calculated in such a way that the vehicle can be moved within the driving zone ([0065], [0108], [0110], [0112]; FIG. 7A; FIG. 7B: 14; FIG. 7C: 24; FIG. 12C: 14; FIG. 12D; FIG. 12E: 14; FIG. 12F: 24; FIG. 13: 25).

Regarding claim 11, Shimazaki teaches the device for driving assistance as recited in claim 10, and Shimazaki further teaches a device wherein the output unit includes a display configured to display surroundings of the vehicle and to display the

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driving zone with respect to the displayed surroundings of the vehicle. ([0032], [0036]; FIG. 2: 4)

Regarding claim 12, Shimazaki teaches the device for driving assistance as recited in claim 11, and Shimazaki further teaches a device further comprising:

a detection unit configured to detect a set steering angle and to determine an anticipated travel path at an unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle. ([0033], [0035], [0036], [0060], [0088], [0123], [0166], [0167]; FIG. 2: 8, 9)

Regarding claim 13, Shimazaki teaches the device for driving assistance as recited in claim 10, and Shimazaki further teaches a device wherein the trajectories delimiting the driving zone require at least one full angle of a steering wheel for following the appropriate trajectory. ([0123], [0149], [0152], [0160], [0163]; FIG. 18; FIG. 19)

Regarding claim 15, Shimazaki teaches the device for driving assistance as recited in claim 10, and Shimazaki further teaches a device further comprising a computer unit configured to determine a parking space suitable for the vehicle. ([0063]; FIG. 2: 8; FIG. 7A: 21, T)

Regarding claim 16, Shimazaki teaches the device for driving assistance as recited in claim 10, and Shimazaki further teaches a device wherein an indication for changing a turning direction of a steering wheel is output. ([0061], [0062], [0063], [0064], [0065], [0067], [0069]; FIG. 2: 4, 13; FIG. 7A: 21, T; FIG. 7B: 14, T; FIG. 7C: 23, 24)

Regarding claim 18, Shimazaki teaches the device for driving assistance as recited in claim 10, and Shimazaki further teaches a device further comprising a

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speaker to output an acoustic alert signal when leaving the driving zone. ([0061]; FIG.

2: 13)

Regarding claim 19, Shimazaki teaches the device for driving assistance as recited in claim 10, and Shimazaki further teaches a device wherein:

the output unit includes a display configured to display surroundings of the vehicle and to display the driving zone with respect to the displayed surroundings of the vehicle (See the citations for claims 10 and 11),

and wherein the trajectories delimiting the driving zone require at least one full angle of a steering wheel for following the appropriate trajectory (See the citations for claim 13).

Regarding claim 20, Shimazaki teaches the device for driving assistance as recited in claim 19, and Shimazaki further teaches a device further comprising:

a detection unit configured to detect a set steering angle and to determine an anticipated travel path at an unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle. (See the citations for claim 12)

Regarding claim 28, Shimazaki teaches:

a driving aid device for parking a vehicle, comprising:

an output unit for outputting driving instructions to a driver, wherein the driving instructions indicate to the driver a driving range between two trajectories which designate two different determined routes, the routes being determined so that the vehicle is moveable to park it within the driving range. (See the citations for claim 10.)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14, 21, 23, 24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimazaki et al. (US PG Pub. 2004/0153243 A1), as applied to claim 10, in view of Janssen (US 6,919,917 B1).

Regarding claim 14, Shimazaki teaches the device for driving assistance as recited in claim 10 but does not teach a device further comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle.

Regarding claim 14, Janssen, in the same field of endeavor, teaches a device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle for the benefit of providing an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction. (col. 1, lines 38-49; col. 2, lines 29-32; col. 6, lines 16-20; FIG. 1: 9a, 9b, 9c, 9d, 9e; FIG. 6: 9c, 9d, 9e)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle, as taught by Janssen, with the device for driving assistance taught by Shimazaki because it would enable the device to provide an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction.

Regarding claim 21, the above combination of Shimazaki and Janssen teaches the device for driving assistance as recited in claim 10, further comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle (see the citations for claim 14), and Shimazaki further teaches a device further comprising:

a computer unit configured to determine a parking space suitable for the vehicle (see the citations for claim 15);

wherein an indication for changing a turning direction of a steering wheel is output (see the citations for claims 15 and 16).

Regarding claim 23, the above combination of Shimazaki and Janssen teaches the device for driving assistance as recited in claim 21, and Shimazaki further teaches a speaker to output an acoustic alert signal when leaving the driving zone. (See the citations for claim 18.)

Regarding claim 24, Shimazaki teaches the device for driving assistance as recited in claim 19, and Shimazaki further teaches a device further comprising:

a computer unit configured to determine a parking space suitable for the vehicle; wherein an indication for changing a turning direction of a steering wheel is output. (See the citations for claims 15 and 16.)

Shimazaki does not teach a device further comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle.

Regarding claim 24, Janssen, in the same field of endeavor, teaches a device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle for the benefit of providing an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction. (See the citations for claim 14.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle, as taught by Janssen, with the device for driving assistance taught by Shimazaki because it would enable the device to provide an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction.

Regarding claim 26, the above combination of Shimazaki and Janssen teaches the device for driving assistance as recited in claim 24, and Shimazaki further teaches a

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device further comprising a speaker to output an acoustic alert signal when leaving the driving zone. (See the citations for claim 18)

Regarding claim 27, the above combination of Shimazaki and Janssen teaches the device for driving assistance as recited in claim 24, and Shimazaki further teaches a device further comprising:

a detection unit configured to detect a set steering angle and to determine an anticipated travel path at an unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle. (See the citations for claims 10 and 11.)

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimazaki et al. (US PG Pub. 2004/0153243 A1) in view of Luckscheiter et al. (US 6,226,592 B1).

Regarding claim 17, Shimazaki teaches the device for driving assistance as recited in claim 10 but does not teach a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone.

Regarding claim 17, Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (col. 1, lines 37-40; col. 2, lines 38-45, 57-63)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device for driving assistance taught by Shimazaki because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior.

6. Claims 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimazaki et al. (US PG Pub. 2004/0153243 A1) in view of Janssen (US 6,919,917 B1) and further in view of Luckscheiter et al. (US 6,226,592 B1).

Regarding claim 22, the above combination of Shimazaki and Janssen teaches the device for driving assistance as recited in claim 21 but does not teach a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone.

Regarding claim 22, Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (col. 1, lines 37-40; col. 2, lines 38-45, 57-63)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device for driving assistance of the above combination because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior.

Regarding claim 25, the above combination of Shimazaki and Janssen teaches the device for driving assistance as recited in claim 24 but does not teach a device further comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone.

Regarding claim 25, Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (col. 1, lines 37-40; col. 2, lines 38-45, 57-63)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a

steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device for driving assistance of the above combination because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior.

Response to Arguments

The applicant's arguments filed March 14, 2008 have been fully considered, but they are not persuasive.

Objections for Minor Informalities

Amended Figure 3 is approved and entered, and the objections to Figure 3 are hereby withdrawn.

The specification having been amended, the objections to the specification are hereby withdrawn.

Rejection of Claims under 35 U.S.C. 102

Regarding the rejection of claim 10 pursuant to 35 U.S.C. 102, the applicant argues that he has amended claim 10 to include the limitation to "parallel parking," and the parallel parking driving instructions feature is not identically disclosed (or even suggested) by U.S. Patent no. 6,564,122 ("Huertgen"), the reference applied. The applicant argues that because Huertgen no longer teaches all the limitations of claim 10, as amended, the anticipation rejections of claims 11 to 15, all of which depend from claim 10, should be withdrawn.

Applicant's arguments with respect to amended claim 10 and claims 11-15, which depend from claim 10, have been considered but are moot in view of the new grounds of rejection. In response to this amendment of claim 10, Shimazaki et al. (US PG Pub. 2004/0153243 A1) has been applied to reject claim 10, as amended, claims 11-13 and claim 15 pursuant to 35 U.S.C. 102(b). As shown above, Shimazaki explicitly discloses all the limitations of claim 10, as amended, including parallel parking driving instructions. Shimazaki also teaches all the limitations of claims 11-13 and 15. Shimazaki and Janssen (US 6,919,917 B1) have been applied to reject claim 14 pursuant to 35 U.S.C. 103(a). The obvious combination of Shimazaki and Janssen teaches all the limitations of claim 14.

Rejection of Claims under 35 U.S.C. 103

Regarding the rejection of claim 16 as unpatentable over the combination of "Huertgen" in view of U.S. Patent No. 6,825,880 ("Asahi") and regarding the rejection of claims 17 and 18 as unpatentable over "Huertgen" in view of U.S. Patent no. 6,336,593 ("Luckscheiter"), the applicant argues that claims 16-18 all depend from claim 10 and are therefore allowable for the same reasons as claim 10, since the secondary references do not cure, and are not asserted to cure, the critical deficiencies of the primary reference.

Applicant's arguments with respect to claims 16-18 have been considered but are moot in view of the new grounds of rejection. In response to the amendment of claim 10, Shimazaki has been applied to reject claims 16 and 18 pursuant to 35 U.S.C. 102(b). As has been shown above, Shimazaki teaches all the limitations of these

claims. The combination of Shimazaki and Luckscheiter et al. (US 6,226,592 B1) has been applied to reject claim 17 under 35 U.S.C. 103(a). The obvious combination of Shimazaki and Luckscheiter teaches all the limitations of claim 17.

Regarding the applicant's submission of new claims 19-28, the applicant argues that new claims 19-28 do not add any new matter and are supported by the present application, including the specification. The applicant argues that claims 19-27 depend from claim 10, and therefore are allowable for the same reasons. The applicant argues that claims 19-27 include further features which are allowable because of their added features, which distinguish the references as applied. The applicant argues that claim 28 (which corresponds to the European Claim 1) is allowable because the Huertgen reference discloses no calculated or determined path that leads into a parking space, and even as to any trajectory depending on the steering angle, no such trajectory is disclosed since the maximum range is independent of any calculated or determined driving instructions into a parking space.

Applicant's arguments with respect to new claims 19-28 have been considered but are moot in view of the new grounds of rejection. In response to the applicant's submission of new claims 19 to 28, Shimazaki has been applied to reject claims 19, 20, and 28 pursuant to 35 U.S.C. 102(b). As shown above, Shimazaki teaches all the limitations of these new claims. Shimazaki and Janssen have been applied to reject claims 21, 23, 24, 26, and 27 pursuant to 35 U.S.C. 103(a). As shown above, the obvious combination of Shimazaki and Janssen teaches all the limitations of claims 21, 23, 24, 26, and 27. Shimazaki, Janssen, and Luckscheiter have been applied to reject

claims 22 and 25 pursuant to 35 U.S.C. 103(a). As shown above, the obvious combination of Shimazaki, Janssen, and Luckscheiter teaches all the limitations of claims 22 and 25.

For all of the foregoing reasons, the applicant's arguments are not persuasive, and claims 10 to 28 are rejected.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN MORTELL whose telephone number is (571)270-1873. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Hofsass can be reached on (571)272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JM/

/Jeff Hofsass/

Supervisory Patent Examiner, Art Unit 2612